REMARKS

The title of the invention was object to because, allegedly, it is not descriptive. Though applicants disagree that the title is not descriptive, in order to advance prosecution that title is amended.

Claims 1-7, 9-17, 19, and 20 were rejected under 35 USC 102 as being anticipated by Katta et al, US Patent 5,377,266. Applicants respectfully traverse.

The Examiner refers to FIG. 8 and more particularly to element 13 within FIG. 8, and the text relating thereto, but it is informative to first review the principles of the subject matter described by Katta et al, as reflected in FIG. 1.

Katta et al receive a compression-encoded MPEG signal and apply this signal to both a code detector 1 and Exclusive OR (XOR) gate 4. With certain exceptions, when code detector 1 detects a codeword a scramble signal is developed and applied to random number generator 2 and to AND gate 3. The random number generator outputs a bit, and that bit is passed by gate 3 to XOR gate 4 concurrently with the arrival of the codeword's last bit. Consequently, when the random number generator outputs a "1," XOR gate 4 inverts the last bit of the codeword and, at which time the output of XOR gate 4 differs from the input codeword in that the last bit is inverted relative to the last bit of the codeword.

As for the above-mentioned exceptions, col. 7, lines 4-6 state

> The code detector 1 detects the last bit of the motion vector as a scramble point except the case where the value of the motion vector is zero.

Also, col. 7, lines 9-12 state

> In the case of "111", "01011", "01010, "01001", and "01000", the last bit of a code is not scrambles and thus not detected.

In short, the input is perused for codewords, and most, though not all, of the codewords are scrambled by inverting the last bit of the codewords if a random number generator outputs a "1". The scrambler has a notion of valid codes (for it detets them), but has no notion of whether what results from the scrambler are also valid codes.

FIG. 8 is similar to FIG. 1, except that it shows the input signal being separated into a number different types of signals, and each of the types of signals is applied to a circuit within element 13. All of the circuits that are responsive to a respective one of the

different types of signals are also responsive to a common signal provided by random number generator 14. There is no teaching of what is contained in element 13 or, moe specifically, what the circuits within element 13 comprises, except that in col. 9, lines 17-18 element 13 is characterized as

> a bit inversion circuit for performing an logical exclusive OR of a bit to be scrambled for each parameter by using a series of random numbers generated by a random number generator 14.

Applicants *surmise* that each one of the circuits within element 13 comprises the code detecting apparatus, the AND gate, and the XOR gate shown in FIG. 1. To some exetent, this surmise fits with the Examiner's assertion that FIG. 8 employs a "plurality of standard code books." The fit, however, is only to the extent that each one of the circuits within element 13 has a code detecting apparatus which necessarily must be cognizant of codes.

The notion of code books is present in the reference, so it may be surmised (again, a *surmise*) that each of the code detecting apparatus is cognizant of codes that belong to a code book. However, there is no teaching that the code book of which one code detecting apparatus is cognizant is different from the code book of which any other code detecting apparatus is cognizant. Indeed, if one were to extend the teaching that is found in the reference, one must note that FIG. 2 describes the various kinds of data that comprise the input that is also applied to the FIG. 8 arrangement, and with respect to FIG. 1 there is a mention of **a** code book, but not a plurality of code books. The direct extension to FIG. 8 is that the element 13 circuits contain identical code detecting apparatus. Therefore, if one were to speculate as to the nature of element 13, one would have to say that it employs a single, and NOT a plurality of code books. Certainly, there is no actual teaching of <u>a plurality</u> of code books relative to the FIG. 8 arrangement, or otherwise.

In contradistinction to the Katta et al teachings, applicants' claim 1 specifies a plurality of standard code books." Based on this, a conclusion must be reached that claim 1 is not anticipated by Katta et al.

It is observed that the preamble of claim 1 specifies that the plurality of standard code books is such that "each of the code books encodes a standard portion of the data transmission." That means that one code book is assigned to be employed to encode one standard portion of the data, while another code book is assigned to be employed to encode

another standard portion of the data. This observation leads to another distinction between applicants' claim 1 and the reference. Specifically, claim 1 specifies

> scrambling at least one of codes among the code books or a correspondence between the code books and portions of the data transmission

This means that the scrambling is such that either a code from one code book is replaced with a code from another code book, or the entire set of codes that are used to encode a particular portion of the data is replaced with a another set of codes (i.e., a substitute cook book is employed in lieu of the standard code book). There is absolutely no indication that the circuits within element 13 effect scrambling based on information that is found in other circuits within element 13, and there is no mention of the specific code books of which the circuits within element 13 are cognizant.

In light of these distinctions, applicants respectfully submit that claim 1 is not anticipated by Katta et al, and neither are dependent claims 2-4.

Amended claim 5 defines a method that scrambles <u>each</u> of the standard codes that appear in the input data into other standard codes. As indicated above, the Katta et al reference does not scramble all codes that appear in the input data stream. Therefore, Katta et al do not anticipate claim 5, or claims 6-10 which depend on claim 5. It is noted that new claim 21 is similar to claim 5, although it is limited to use of tables, rather than (alternatively) use of an algorithm.

Claim 11 is an apparatus claim that parallels the method defined in claim 1. For the reasons expressed in connection with claim 1, applicants respectfully submit that claim 11 is not anticipated by Katta et al, and neither are claims 12-20, which depend on claim 11.

Claims 8 and 18 were rejected under 35 USC 103 as being unpatentable over the above-discussed Katta et al in view of pages 47-74 in "Applied Cryptography," pages 47-74 in "Applied Cryptography," Schmeier, *John Wiley & Sons, Inc.* 1996. The Schneier reference is presented for its teaching of cryptography. Applicants believe that the limitations that are present in claims 5 and 11 (from which claims 8 and 18 respectively depend) and which are not taught or suggested by Katta et al, are also not taught or suggested by Schneier. It is respectfully submitted, therefore, that claims 8 and 18 are not obvious in view of the Katta et al and Schneier combination of references.

New claims 22-28 depend on claim 1. They are believed to contain limitations that in and of themselves render the claims not anticipated or obvious in view of the cited references.

New claim 29 is independent. Among the other limitations that make the claim not anticipated or rendered obvious in view of the cited reference is the limitation that explicitly excludes the method employed in the Katta et al reference.

In light of the above amendments and remarks, applicants respectfully submit that all of the Examiner's objections and rejections have been overcome. Reconsideration and allowance of previously presented claims 1-20 and new claims 21-37 are respectfully solicited.

Respectfully,
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